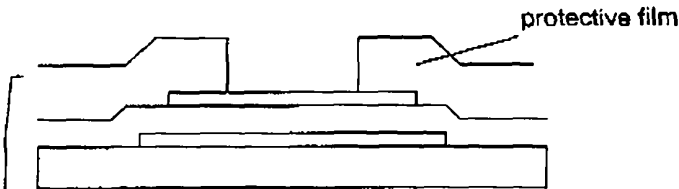


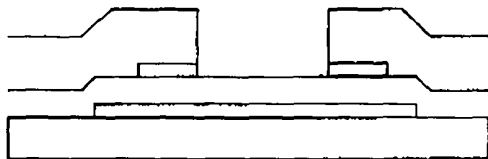
Serial #: 09/851,942
 Atty Doc: HITA.0052

By using a buffer solution of hydrofluoric acid, the protective film is opened to form the contact hole.

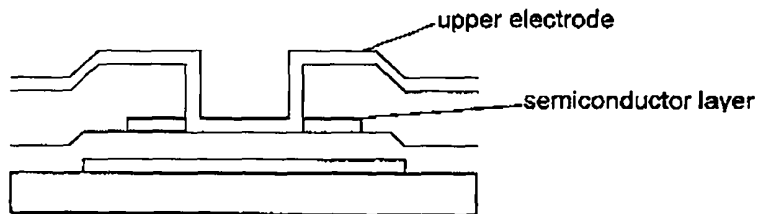


The semiconductor layer is selectively etched above the dielectric film.

invention



The upper electrode is formed.

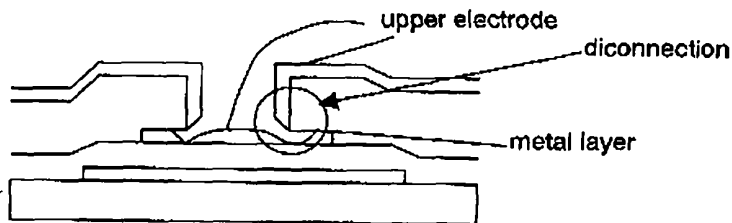


If the metal layer is formed on the dielectric film instead of semiconductor layer, the side edge of the metal layer is scooped out.

prior art



As a result, the upper electrode is not connected around the contact hole.



Accordingly, it is important that the semiconductor layer forms in the part of surroundings of a contact hole in this invention.